

AIR QUALITY PERMIT

Issued To: Jim Gilman Excavating, Inc. Permit #2545-05
3099 Grand Ave. Administrative Amendment (AA)
Butte, MT 59701 Received: 3/9/07
Department's Decision on AA: 5/31/07
Permit Final:
AFS #777-2545

An air quality permit, with conditions, is hereby granted to Jim Gilman Excavating, Inc. (Gilman) pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facility

A. Plant Location

Gilman owns a portable crushing/screening facility that may operate at various locations throughout Montana. The facility is currently located in Section 33, Township 7 North, Range 2 East in Broadwater County.

Permit 2545-05 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM₁₀ nonattainment areas.

For a complete list of equipment, see Section IA. of the permit analysis.

B. Current Permit Action

On March 9, 2007, the Department received a request from Gilman to administratively amend their permit to specifically identify the existing generators currently permitted as "associated equipment." Gilman also requested to update their permit to reflect various de minimis changes, including the replacement of the 1988 Cedar Rapids Jaw Crusher with a 2001 El Russ Jaw Crusher, and the replacement of the 1992 El-Jay Impact crusher with a 2006 Cedar Rapids 7 x 20 3-deck screen.

Gilman later requested to limit the diesel generator operations to maintain a Title V synthetic minor status. The permit was also updated to reflect the current language used by the Department. Permit #2545-05 will replace permit #2545-04.

Section II: Limitations and Conditions

A. Emission and Operational Limitations

1. Gilman shall not cause or authorize to be discharged into the atmosphere from any New Source Performance Standard (NSPS)-affected crushers manufactured after August 31, 1983, any visible emissions, that exhibit an opacity of 15% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
2. Gilman shall not cause or authorize to be discharged into the atmosphere from

any other NSPS-affected equipment manufactured after August 31, 1983, such as screens or transfer points, any visible emission that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

3. Gilman shall not cause or authorize to be discharged into the atmosphere from any non-NSPS equipment used in conjunction with this facility, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308).
4. Gilman shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308 and ARM 17.8.752).
5. Gilman shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitations in Section II.A.4 (ARM 17.8.749).
6. Water and spray bars shall be available and used, as necessary, to maintain compliance with the opacity limitations in Section II.A.1, II.A.2, and II.A.3 (ARM 17.8.752).
7. Crusher production is limited to 4,380,000 tons during any rolling 12-month time period (ARM 17.8.749).
8. Gilman shall operate no more than 3 diesel generators with a total capacity not to exceed 1300 kilowatts (KW) (ARM 17.8.749).
9. The combined hours of operation for the 3 diesel generators shall not exceed 3,700 hours on a rolling 12-month period (ARM 17.8.749 and ARM 17.8.1204).
10. Gilman shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, for any applicable diesel engines (ARM 17.8.340 and 40 CFR 60, Subpart IIII).
11. Gilman shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR Part 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants* (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

B. Testing Requirements

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup, an EPA Method 9 opacity test and/or other methods and procedures as specified in 40 CFR Part 60.675 must be performed on the facility to demonstrate compliance with the emission limitation contained in Section II.A.1 and II.A.2 (ARM 17.8.105, ARM 17.8.340, and 40 CFR Part 60, General Provisions and Subpart OOO).
2. All compliance tests shall be conducted in accordance with the Montana Source

Test Protocol and Procedures Manual (ARM 17.8.106).

3. The Department may require further testing (ARM 17.8.105).

C. Reporting Requirements

1. If this crushing/screening plant is moved to another location, an Intent to Transfer form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area where the transfer will be completed at least 15 days prior to the move. The Intent to Transfer form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department. Once the plant is moved to another location, it shall not operate in the new location for longer than one year (ARM 17.8.765).
2. Gilman shall supply the Department with annual production information for all emission points, as required by the Department, in the annual emissions inventory request. The request will include, but is not limited to, all sources of emissions identified in the most recent emission inventory report and sources identified in Section I.A of the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505). Gilman shall submit the following information annually to the Department by March 1 of each year, which may be submitted with the annual emission inventory (ARM 17.8.505):

- a. annual crushing/screening production
 - b. annual hours of diesel generator operation
3. Gilman shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745 that would include a change in the control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
4. Gilman shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. All records compiled in accordance with this permit shall be maintained by Gilman as a permanent business record for at least 5 years following the date of the measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).
5. Gilman shall document, by month, the production of the crushing/screening plant. By the 25th day of each month, Gilman shall calculate the monthly throughput of

the crushing/screening plant during the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.7. The information for each of the previous months shall be submitted along with the annual emissions inventory (ARM 17.8.749).

6. Gilman shall document, by month, the hours of operation of the diesel generator(s). By the 25th day of each month, Gilman shall calculate the hours of operation for the diesel generator(s) for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.9. The information for each of the previous months shall be submitted along with the annual emissions inventory (ARM 17.8.749).
7. If the permitted equipment is used in conjunction with any other equipment owned or operated by Gilman, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
8. Gilman shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207, and the annual certification shall be submitted with the annual emissions inventory information (ARM 17.8.749 and ARM 17.8.1204).

Section III: General Conditions

- A. Inspection – Gilman shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Gilman fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Gilman of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, et seq. (ARM 17.8.756)
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, et seq., MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The

issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Gilman may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must be begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. Gilman shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program.

PERMIT ANALYSIS
Gilman Excavating, Inc.
Permit #2545-05

I. Introduction/Process Description

A. Permitted Equipment

Jim Gilman Excavating, Inc. (Gilman) operates the following equipment:

- 1999 Allis Hydrocone portable crusher (400 TPH);
- 2001 El-Russ/Allis Hydrocone crusher (400 TPH);
- 2001 El Russ Jaw Crusher (up to 150 TPH);
- 1988 Cedar Rapids 22"x48" Jaw Crusher (150 TPH),
- LJ Dual 7'x 20' 3-Deck Screen (each up to 500 TPH);
- 3 Diesel Generators with a total capacity not to exceed 1300 kilowatts (KW); and
- Associated equipment.

B. Process Description

Gilman proposes to use a crushing/screening plant, as described above, to crush and sort sand and gravel materials for sale for use in construction operations. For a typical operational setup, the raw material is processed through the jaw and hydrocone crushers. The processed material is then screened by means of the 3-deck screens and either stockpiled for use or conveyed back through the crushing/screening operation.

C. Permit History

On April 21, 1989, **Permit #2545-00** was issued to Gilman to operate a 1988 Cedar Rapids 22"x48" jaw crusher, a 1986 El-Jay 54" cone crusher, a 1980 El-Jay 54" cone crusher, and a 1986 Cemco impact crusher, and associated equipment.

On April 1, 1994, Gilman was issued a final permit to relocate their 1988 Cedar Rapids 22"x48" jaw crusher, a 1986 El-Jay 54" cone crusher, 1980 El-Jay 54" cone crusher, and 1986 Cemco impact crusher contained in Permit #2545-00 to Section 23, Township 3 North, Range 9 West, in Silver Bow County, Montana. The new location was approximately 2 kilometers from the Butte particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment area. Therefore, the conditions contained in Gilman's Permit #2545-00 were modified, and controls implemented, to keep the source under 547 lb/day of PM₁₀ emissions. The new conditions and reporting requirements were stated in **Addendum 1 of Permit #2545-01**. This addendum expired on September 30, 1994.

On February 26, 1995, Gilman was issued a final permit to allow the 1988 Cedar Rapids 22"x48" jaw crusher, 1986 El-Jay 54" cone crusher, and the 1980 El-Jay 54" cone crusher to operate at the NW ¼ of Section 23, Township 3 North, Range 8 West, in Silver Bow County, Montana, during the winter months (October 1, 1995, through March 31, 1996). The facility was located within the Butte-Silver Bow PM₁₀ nonattainment area. Because this location was within a PM₁₀ nonattainment area, it was determined that the addendum to Permit #2545-01 must be modified and controls implemented to limit the impacts of the portable crushers' emissions on the nonattainment area. The new conditions and reporting requirements were stated in **Addendum 2 of Permit #2545-02**.

On March 2, 2001, Gilman was issued a final permit to reflect the replacement of a portable

1986 Cemco Impact crusher (125 TPH), 1986 El-Jay 54" cone (125 TPH), and 1980 EL-Jay 54" cone (125 TPH) with a portable 1999 Allis Hydrocone crusher (400 TPH), 1996 EL-Jay Rollercone II crusher (400 TPH), and 1992 EL-Jay Impact crusher (150 TPH). The replacement of the permitted equipment resulted in the generation of particulate air emissions of less than 15 tons per year; therefore, the new equipment was added in accordance with ARM 17.8.745. The permit language was also updated. Furthermore, Addendum 2 was removed from the permit because it had expired and Gilman has no plans to operate in or within 10 km of any nonattainment areas. **Permit #2545-03** replaced Permit #2545-02.

On March 13, 2002, the Montana Department of Environmental Quality (Department) received a request from Gilman to modify Permit #2545-03 that would replace the 1996 El-Jay Rollercone II Crusher with a 2001 El-Russ/Allis Hydrocone Crusher. The proposed change resulted in an increase of particulate emissions of less than 15 tons per year. Therefore, the new equipment was incorporated into this permit modification in accordance with ARM 17.8.745. **Permit #2545-04** replaced Permit #2545-03.

D. Current Permit Action

On March 9, 2007, the Department received a request from Gilman to administratively amend their permit to specifically identify the existing generators currently permitted as "associated equipment." Gilman also requested to update their permit to reflect various de minimis changes, including the replacement of the 1988 Cedar Rapids Jaw Crusher with a 2001 El Russ Jaw Crusher, and the replacement of the 1992 El-Jay Impact crusher with a 2006 Cedar Rapids 7 x 20 3-deck screen.

Gilman later requested to limit the diesel generator operations to maintain a synthetic minor status. The permit was also updated to reflect the current language used by the Department. **Permit #2545-05** will replace permit #2545-04.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Sub-Chapter 1, General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This section includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the

emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment, including instruments and sensing devices, and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Gilman shall comply with all requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

B. ARM 17.8, Sub-Chapter 2, Ambient Air Quality, including, but not limited to:

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.213 Ambient Air Quality Standard for Ozone
5. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
6. ARM 17.8.221 Ambient Air Quality Standard for Visibility
7. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

Gilman must comply with the applicable ambient air quality standards.

C. ARM 17.8, Sub-Chapter 3, Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged to an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Gilman shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
 4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
 5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
 6. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). The owner and operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, shall comply with the standards and provisions of 40 CFR Part 60. NSPS (40 CFR Part 60, Subpart A, General Provisions, and Subpart OOO, Non-Metallic Mineral Processing Plant) does apply to the facility.
- D. ARM 17.8, Sub-Chapter 5, Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:
1. ARM 17.8.504 Air Quality Permit Application Fees. Gilman shall submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Gilman was not required to submit a permit application fee for the current permit action.
 2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. This operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.
- An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.
- E. ARM 17.8, Sub-Chapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
 2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. Gilman has a PTE greater than 15 tons per year of PM, PM₁₀, Oxides of Nitrogen (NO_x), and Carbon Monoxide (CO); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. A BACT analysis and determination was not required for this administrative permitting action.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Gilman of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.
12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
 14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
 15. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.
- F. ARM 17.8, Sub-Chapter 8, Prevention of Significant Deterioration of Air Quality including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this sub-chapter.
 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the Federal Clean Air Act (FCAA) that it would emit, except as this sub-chapter would otherwise allow.
- This facility is not a major stationary source since it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).
- G. ARM 17.8, Subchapter 12, Operating Permit Program Applicability, including, but not limited to:
1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. Potential to Emit (PTE) > 100 tons/year of any pollutant.

- b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule.
 - c. Sources with PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ non-attainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2545-05 for Gilman, the following conclusions were made:
- a. The facility's PTE is less than 100 tons/year for all criteria pollutants.
 - b. The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is subject to a current NSPS.
 - e. This facility is not subject to any current National Emission Standards for Hazardous Air Pollutants (NESHAP) standards.
 - f. This source is not a Title IV affected source or a solid waste combustion unit.
 - g. This source is not an EPA designated Title V source.

Based on these facts, the Department has determined that Gilman is not subject to the Title V Operating Permit Program. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Gilman will be required to obtain a Title V Operating Permit.

- h. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.
 - i. In applying for an exemption under this section the owner or operator of the facility shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.
 - ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.
3. ARM 17.8.1207, Certification of Truth, Accuracy, and Completeness. The compliance certification submittal by ARM 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

III. BACT Determination

A BACT determination is required for each new or altered source. Gilman shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized. A BACT determination was not required for the current permit action because the permit change is considered an administrative permit change.

IV. Emission Inventory

Source	PM	PM ₁₀	NO _x	Tons/Year		
				VOC	CO	SO _x
1999 Allis Hydrocone Crusher (400 TPH)	2.10	0.96				
2001 El-Russ/Allis Hydrocone Crusher (400 TPH)	2.10	0.96				
2001 El Russ Jaw Crusher (150 TPH)	0.79	0.35				
LJ Dual 3-Screen Deck 7' x 20' (500 TPH)	4.82	1.62				
2006 Cedar Rapids 3-Deck Screen (500 TPH)	4.82	1.62				
Truck Unloading (2)	0.18	0.18				
Material Transfer (10)	2.45	0.79				
Pile Forming (5)	28.03	13.14				
3 Diesel Generator (1300 KW)	6.99	6.99	99.53	8.12	21.44	6.55
Total - "non-fugitive"	52.28	26.61	99.53	8.12	21.44	6.55
Haul Roads	12.68	3.60				
Total Emissions	61.02	30.21	99.53	8.12	21.44	6.55

CRUSHERS - (SCC 3-05-030-03, controlled)

1999 Allis Hydrocone Crusher (400 TPH)

Process Rate: 400 tons/hr 3,504,000 tons/year unrestricted
Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.0012 lbs/ton * 400 tons/hr = 0.48 lbs/hr
0.48 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = 2.10 tons/yr

PM₁₀ Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00054 lbs/ton * 400 tons/hr = 0.22 lbs/hr
0.22 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = 0.96 tons/yr

2001 El-Russ/Allis Hydrocone Crusher (400 TPH)

Process Rate: 400 tons/hr 3,504,000 tons/year
Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.0012 lbs/ton * 400 tons/hr = 0.48 lbs/hr
0.48 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = 2.10 tons/yr

PM₁₀ Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00054 lbs/ton * 400 tons/hr = 0.22 lbs/hr

	0.22 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =	0.96 tons/yr
2001 El Russ Jaw Crusher (150 TPH)		
Process Rate:	150 tons/hr	1,314,000 tons/year
Hours of operation:	8760 hr/yr	

PM Emissions (controlled):

Emission Factor:	0.0012 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	0.0012 lbs/ton * 150 tons/hr =	0.18 lbs/hr
	0.18 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =	0.79 tons/yr

PM₁₀ Emissions (controlled):

Emission Factor:	0.00054 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	0.00054 lbs/ton * 150 tons/hr =	0.08 lbs/hr
	0.08 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =	0.35 tons/yr

SCREENS - (SCC 3-05-020-02,-03, controlled)
LJ Dual 3-Screen Deck 7' x 20' (500 TPH)

Process Rate:	500 tons/hr
Hours of operation:	8760 hr/yr

PM Emissions (controlled):

Emission Factor:	0.0022 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	0.0022 lbs/ton * 500 tons/hr =	1.10 lbs/hr
	1.1 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =	4.82 tons/yr

PM₁₀ Emissions (controlled):

Emission Factor:	0.00074 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	0.00074 lbs/ton * 500 tons/hr =	0.37 lbs/hr
	0.37 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =	1.62 tons/yr

2006 Cedar Rapids 3-Deck Screen (500 TPH)

Process Rate:	500 tons/hr
Hours of operation:	8760 hr/yr

PM Emissions (controlled):

Emission Factor:	0.0022 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	0.0022 lbs/ton * 500 tons/hr =	1.10 lbs/hr
	1.1 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =	4.82 tons/yr

PM₁₀ Emissions (controlled):

Emission Factor:	0.00074 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	0.00074 lbs/ton * 500 tons/hr =	0.37 lbs/hr
	0.37 lbs/hr * 8760 hr/yr * 0.0005 ton/lb =	1.62 tons/yr

Material Transfer (SCC 3-05-020-06, controlled)
Truck Unloading (2)

Process Rate:	400 tons/hr
Number of Loads	2 Loads
Hours of operation:	8760 hr/yr

PM Emissions (controlled):

Emission Factor:	5.00E-05 lbs/ton	(AP-42 Section 11.19.2-2, 8/2004)
Calculations:	0.00005 lbs/ton * 400 tons/hr * 2 Loads =	0.04 lbs/hr

PM₁₀ Emissions (controlled): $0.04 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ tons/lb} = 0.18 \text{ tons/yr}$

Emission Factor: $5.00\text{E-}05 \text{ lbs/ton}$ (AP-42 Section 11.19.2-2, 8/2004)
 Calculations: $0.00005 \text{ lbs/ton} * 400 \text{ tons/hr} * 2 \text{ Loads} = 0.04 \text{ lbs/hr}$
 $0.04 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ tons/lb} = 0.18 \text{ tons/yr}$

Material Transfer (10)

Process Rate: 400 tons/hr
 Number of Transfers: 10 Transfers
 Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.00014 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
 Calculations: $0.00014 \text{ lbs/ton} * 400 \text{ tons/hr} * 10 \text{ Transfers} = 0.56 \text{ lbs/hr}$
 $0.56 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 2.45 \text{ tons/yr}$

PM₁₀ Emissions (controlled):

Emission Factor: $4.60\text{E-}05 \text{ lbs/ton}$ (AP-42 Section 11.19.2-2, 8/2004)
 Calculations: $0.000046 \text{ lbs/ton} * 400 \text{ tons/hr} * 10 \text{ Transfers} = 0.18 \text{ lbs/hr}$
 $0.18 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.79 \text{ tons/yr}$

Pile Forming (5)

Process Rate: 400 tons/hr
 Number of Piles: 5 Piles
 Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.0032 lbs/ton (AP-42 Section 13.2.4, 1/95)
 Calculations: $0.0032 \text{ lbs/ton} * 400 \text{ tons/hr} * 5 \text{ Piles} = 6.40 \text{ lbs/hr}$
 $6.4 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ tons/lb} = 28.03 \text{ tons/yr}$

PM₁₀ Emissions (controlled):

Emission Factor: 0.0015 lbs/ton (AP-42 Section 13.2.4, 1/95)
 Calculations: $0.0015 \text{ lbs/ton} * 400 \text{ tons/hr} * 5 \text{ Piles} = 3.00 \text{ lbs/hr}$
 $3 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ tons/lb} = 13.14 \text{ tons/yr}$

Haul Roads

Vehicle miles traveled (estimate): 5 VMT/day
 Control Efficiency is included in Emission Factor

PM Emissions (controlled):

Emission Factor (Rated Load Capacity <50 tons): 13.90 Lbs/VMT (AP-42 Section 13.2.2, 12/03)
 Calculations: $5 \text{ VMT/day} * 13.90 \text{ Lbs/VMT} = 69.5 \text{ lb/day}$
 $69.5 \text{ lb/day} * 365 \text{ days/yr} = 25.37 \text{ tons/yr}$

PM₁₀ Emissions (controlled):

Emission Factor (Rated Load Capacity <50 tons): 3.95 Lbs/VMT (AP-42 Section 13.2.2, 12/03)
 Calculations: $5 \text{ VMT/day} * 3.95 \text{ Lbs/VMT} = 19.75 \text{ lb/day}$
 $19.75 \text{ lb/day} * 365 \text{ days/yr} = 7.21 \text{ tons/yr}$

3 Diesel Generator (1300 KW)

Horsepower = 1743 Hp 1 KW = 1.341 hp
 Generator Size = 1300 KW 1 Hp-hr = 7000 BTU

BTU/hr = 12.20 MMBtu/hr Hours of Operation: 3700 hrs/yr
 PM Emissions

Emission Factor: 0.31 lbs/MMBtu (AP-42, 3.4-1, 10/96)
 Calculations: 12.2 MMBtu/hr * 0.31 lbs/MMBtu = 3.78 lb/hr
 3.78 lb/hr * 3700 hr/yr * 0.0005 tons/lb = 6.99 tons/yr

PM₁₀ Emissions

Emission Factor: 0.31 lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 12.2 MMBtu/hr * 0.31 lbs/MMBtu = 3.78 lb/hr
 3.78 lb/hr * 3700 hr/yr * 0.0005 tons/lb = 6.99 tons/yr

NO_x Emissions

Emission Factor: 4.41 lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 12.2 MMBtu/hr * 4.41 lbs/MMBtu = 53.80 lb/hr
 53.80 lb/hr * 3700 hr/yr * 0.0005 tons/lb = 99.53 tons/yr

VOC Emissions

Emission Factor: 0.36 lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 12.2 MMBtu/hr * 0.36 lbs/MMBtu = 4.39 lb/hr
 4.39 lb/hr * 3700 hr/yr * 0.0005 tons/lb = 8.12 tons/yr

CO Emissions

Emission Factor: 0.95 lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 12.2 MMBtu/hr * 0.95 lbs/MMBtu = 11.59 lb/hr
 11.59 lb/hr * 3700 hr/yr * 0.0005 tons/lb = 21.44 tons/yr

SO_x Emissions 0.05 % sulfur

Emission Factor: 0.29 lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 12.2 MMBtu/hr * 0.29 lbs/MMBtu = 3.54 lb/hr
 3.54 lb/hr * 3700 hr/yr * 0.0005 tons/lb = 6.55 tons/yr

V. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM₁₀. Due to exceedances of the national standards for PM₁₀, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM₁₀. As a result of this designation, EPA required the Department and the City-County Health Departments submit PM₁₀ State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to PM₁₀ emissions.

An addendum will be required if Gilman wants to operate Permit #2545-05 in or within 10 kilometers of a PM₁₀ nonattainment area.

VI. Air Quality Impacts

This permit is for a portable screening/crushing plant located in various locations around Montana. In the view of the Department, the amount of controlled particulate emissions generated by this project will not cause concentrations of PM₁₀ in the ambient air that exceed the set standard. In addition, this source is portable and any air quality impacts will be minimal.

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VIII. Environmental Assessment

An environmental assessment was not required for this project because it is considered an administrative action.

Permit Analysis Prepared by: Christine Weaver

Date: 5/1/07